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ABSTRACT

The Pre-Kindergarten Program was established as a part of the Language Development Program (funded under Title I of the 1965 Elementary Secondary Education Act) which is intended to increase the language facility of low income Columbus children. The pre-kindergarten child should leave the program feeling important and unique and should have gained language, social, and motor skills which enable him to be successful in kindergarten and first grade. The curriculum of the program was developed by the classroom teachers and social workers in the program. It included instruction in vocabulary development, social growth, gross-and-fine-motor coordination development, number concept development, music, art, and literature. The involvement of parents in the program was considered essential. Parents were encouraged to visit the classroom for observation and conferences with teachers. The teachers visited in the home to discuss the child's progress with the parents. There were 659 pupils enrolled at some time during the year and 487 remained during the entire year. Each child attended school for four half-day sessions per week. Each session accommodated between 12 and 18 pupils. The primary evaluation instrument was the "Bettye Caldwell Pre-School Inventory." (Author/JM)

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FINAL REPORT
1969-70 PRE-KINDERGARTEN

FINAL REPORT
1970 SUMMER PRE-KINDERGARTEN

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FINAL REPORT

1969-70 PRE-KINDERGARTEN

SECTION I. OBJECTIVES OF THE EVALUATION

This report is written in order that Pre-Kindergarten teachers, administrative personnel in the Department of Special Program Development of the Division of Instruction, and the members of the Board of Education may become informed about the nature of the outcomes of the 1969-70 Pre-Kindergarten Program.

SECTION II. SPECIFICATION OF THE PROGRAM

A. Educational Philosophy Behind the Program

The Pre-Kindergarten Program was established as a part of the Language Development Program, which is intended to increase the language facility of low income Columbus children. Research indicates that children from two to five years old are able to learn easily, and that instruction in these years is more effective than when the child is older. Likewise, low reading achievement of primary and intermediate grade children is often associated with a lack of sensory and language stimulation during preschool years. The pre-kindergarten child should leave the Pre-Kindergarten Program feeling important and unique and should have gained language, social, and motor skills which enable him to be successful in kindergarten and first grade.

The educational philosophy behind the program includes the following premises:

a. The whole child must be educated. This includes the cognitive, social-emotional, and psychomotor functions.

b. The child must develop his perceptive abilities, by being given opportunities to use his five senses.

c. The four-year-old must have opportunities to translate experiences with concrete objects, animals, events, and people into spoken language.

d. Toys, games, art materials, music, and physical exercise are effective media for educating the four-year-old.

e. In order to increase the impact of the instruction, teachers should work with parents to show them ways of teaching their four-year-old.

B. The Curriculum

The curriculum of the Pre-Kindergarten Program was developed by the classroom teachers and social workers in the program. The curriculum included instruction in vocabulary development, social growth, gross-and-fine-motor coordination development, number concept development, music, art, and literature.

The curriculum included the following tasks:[1]

a. Stimulation of children to perceive aspects of the world about them and fix these aspects by the use of language.

b. Development of more extended and accurate language.

c. Development of a sense of mastery over aspects of the immediate environment and enthusiasm for learning for its own sake.

d. Development of thinking and reasoning and the ability to make new insights and discoveries for oneself.

e. Development of purposive learning activities and the ability to make new insights and discoveries for oneself.

f. Development of purposive learning activities and the ability to give attention for long periods of time.

g. Development of social consciousness.

h. Learning takes place through the use of games, concrete materials (blocks, toys, objects), and socio-dramatic play.

Because each teacher developed her own instructional activities, there was much variation in the activities from classroom to classroom.

The involvement of parents in the program was considered essential. Therefore, the parents were encouraged to visit the classroom for observation and conferences with teachers. The teachers visited in the homes to discuss the child's progress with the parents. Wednesday of each week was designed to serve parents.

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[1] From "Language Development and Mathematics Improvement," Title I ESEA of 1965. Project Narrative, August 1, 1969.

C. Learning Objectives

The Objectives of the Pre-Kindergarten Program were as follows:

Objective 1. To facilitate the perceptive development of the enrolled child such that, if successful, the child will be able to identify and classify sensory experiences as measured by the Bettye Caldwell Preschool Inventory.

Objective 2. To facilitate the development of the enrolled child in oral language skills related to his school environment such that, if successful, the child will be able to score at or above the 67th percentile on a post-test administration of the "associative vocabulary" subtest of the Bettye Caldwell Preschool Inventory.

Objective 3. To design and implement a parental education program such that, if successful, parents will be encouraged to support and reinforce the instructional program, as measured by parent interviews; also, to follow through on health needs of the child, as measured by health center medical and dental records.

The three above objectives were broad and the staff of the program (teachers, service staff, etc.) developed specific goals which could be translated into daily learning activities. Each teacher developed learning activities to relate to the broad goals.

D. Program Organization

Instructional Procedures

The Pre-Kindergarten Program used a variety of instructional procedures to accomplish the objectives of the program. A sample of activities is listed below:

Objective 1. Perceptual Development

1. Taking a trip to the neighborhood grocery store, to learn the names and type of foods and the functions of the grocery clerk.

2. Playing rhythm instruments, and learning the different sounds instruments make.

3. Classifying objects into groups by color, size, and shape.

Objective 2. Development of Oral Language Skills

1. Playing games of following directions, such as "Simon says."

2. Using the tape recorder for a child to record his telling of a story.

3. Planning sessions where children discuss what they will be doing that day.

4. Having a child retell a story that has been read to him.

5. Classfying objects by size, shape, and color, and telling the reason for the classifications.

Objective 3. Parent Education - Activities for Parents

1. A film on child development, showing the typical behavior of four-year-olds, and ways to deal with these behaviors.

2. A lecture-demonstration by a nutritionist concerning a balanced diet, and stretching the food dollar.

3. A film or speaker on sex education of young children.

Staff

Each Pre-Kindergarten unit's staff consisted of a teacher, two school aides (one morning and one afternoon aide) and any number of volunteers who served at least one-half day each week.

In addition to the teaching staff, a social service team of four full-time social workers worked with the teachers at each school.

Table I lists the participating schools and the number of classes for Pre-Kindergarten.

TABLE I

Names of Participating Schools, Number of Language Development Teachers, and Number of Classes in Pre-Kindergarten, as of June 1970

School	No. of Teachers	No. of Classes*
1. Beatty Park	2	4
2. Ohio	2	4
3. Windsor	2	4
4. Milo	2	2
5. Livingston	1	2
6. Douglas	1	2
7. Lincoln Park	1	2
8. Weinland Park	1	2
9. Main	1	2
10. Eleventh	1	2
11. Fair	1	2
12. Garfield	1	2
13. Beck	1	2
14. Second	1	2
15. Trevitt	1	2
16. Reeb	1	2
17. Felton	1	2
Totals	21	39

*Each teacher may have a maximum of 2 classes, one in mornings and one in afternoons.

The teachers performed all the duties of a regular teacher, as well as selecting children for the program, developing the curriculum, working with parents in supporting the pre-Kindergarten Program in the home, and participating in the program of inservice education.

The teacher aides were high school girls with training in child development. They assisted the teacher with clerical and non-instructional duties (preparing instructional materials, checking attendance), and in instruc onal activities (reading to the children, assisting with learning activities).

Volunteers, who attended about one session each week, assisted the professional staff in various ways, depending on their special interests and abilities. Such contributions usually included storytelling, music, arts and crafts, or making instructional equipment.

Inservice Education

Teachers attended professional growth meetings approximately once each month for one or two half-days. Teacher aides received orientation and training in their respective high schools through a special home economics curriculum.

E. Students

There were 659 pupils enrolled at some time during the year in the Pre-Kindergarten Program, and 487 remained during the entire year.

The pupils were selected according to the following criteria:

a. Age - Children eligible to enroll in kindergarten in September 1970.

b. Residence - Children residing in school attendance areas qualifying for participation in Title I ESEA funded projects.

c. Home Environment - Children whose home environment showed the greatest need were given greatest priority in enrollment. Factors considered were the absense of the father, number of persons residing in the home, income level, etc.

After screening and selecting pupils, teachers and social workers kept a list of additional eligible pupils to replace those who moved from the area and left the program.

F. Instructional and Community Setting

Each child attended school for four half-day sessions per week (2 1/2 hours each day). Each session (class) accomodated between 12 and 18 pupils. The program was open to children who eventually would be entering either public or non-public schools.

The schools in which Pre-Kindergarten was operated were Priority I, II, III, and IV schools (those schools with the highest number of low income pupils in their attendance area). Table I lists the seventeen schools involved.

Mobility rate for the schools served was between forty per cent and seventeen per cent, except for one school with a six per cent mobility rate. The system-wide rate for the elementary schools is fifteen per cent.

The proportion of white pupils in each school varied from eighty-eight per cent to zero per cent (one-hundred per cent non-white).

SECTION III. PROGRAM OUTCOMES

A. Experiences Provided

The opportunities provided for the pre-kindergarten pupils included experiences in music, arts and crafts, physical education, listening to stories, socio-dramatic play, educational trips, and many other activities designed to meet the objectives and goals of the program. Each teacher designed her own activities, so the opportunities provided in each school were somewhat different.

B. Pupil Achievement Data, Objective I and Objective 2

Instrumentation

The Bettye Caldwell Preschool Inventory was used to measure pupil achievement. This test is administered individually by the classroom teacher and requires 15 to 20 minutes per child.

Table 2 below describes each subtest and the factor it measures.

TABLE 2

BETTYE CALDWELL RESCHOOL INVENTORY

Subtest Number	Name of Subtest	Factor it Measures
I	Personal-Social Responsiveness	Abiiity to respond to adult by following directions, knowing name, etc.
II	Associative Vocabulary	Verbally identifying functions, actions, events, time sequences, and social roles.
III	Concept Activation, Numerical	Telling how many, more or less, and seriated positions.
IV	Concept Activation, Sensory	Identifying colors, motions, shapes of objects.
Total	Total Score	

Sample

All pre-kindergarten pupils were pre-tested individually by their teachers (N = 590) in September and post-tested in May. The number of children who received both the pre and post-test was 487 children (N = 487).

Types of Analysis

For each of the four subtests and total score, the percentages above and below the national medians are reported on both pre and post-tests. To determine the nature of the changes in pupil scores, the pre-test and post-test scores were divided into quartiles and organized in joint distribution or "turnover table". A turnover table appears for each subtest and the total score.

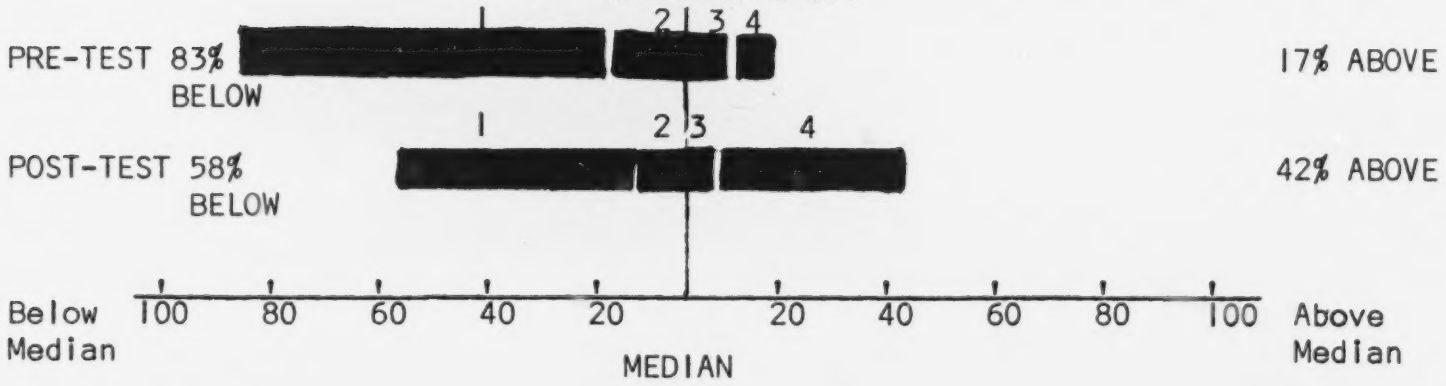
Results

Subtest I - Personal-Social Responsiveness

Table 3 illustrates the percentages above and below the national median was different between the pre and post-testing; however nearly sixty per cent of the post-test scores fell below the median. It appears that the pupils made only limited gains on the first subtest scores.

TABLE 3

PERCENTAGES OF PRE-KINDERGARTEN PUPILS
ABOVE AND BELOW THE NATIONAL MEDIAN*
SUBTEST I - PERSONAL SOCIAL
RESPONSIVENESS



*In the national sample 50 per cent of pupils were below and 50 per cent above the median before any classroom instruction. The numbered sections of each bar show the percentages of Columbus pupils in each national quartile.

Another way to assess the effects of the Pre-Kindergarten Program is to construct a "turnover table." Such a table compares the quartile obtained on the pre-test with the quartile obtained on the post-test for each pupil. Table 4 is a turnover table for Subtest I. Fall quartile placement is shown in columns, and spring quartile placement in horizontal rows.

TABLE 4

PRE-POST COMPARISONS BY QUARTILE
PLACEMENT FOR PRE-KINDERGARTEN PUPILS
SUBTEST I

		Pre-Test			
Post-Test	Quartile	1	2	3	4
	1	39% N = 190	4% N = 21	1% N = 3	1/2% N = 2
	2	10% N = 48	2% N = 12	1% N = 4	1% N = 4
	3	4% N = 18	2% N = 10	1/2% N = 2	1/2% N = 2
	4	13% N = 63	8% N = 41	6% N = 30	8% N = 37

Quartile Standing

N = 210	improved	43.1%
N = 241	same quartile	49.4%
N = 36	regressed	7.3%
Total N = 487		100%

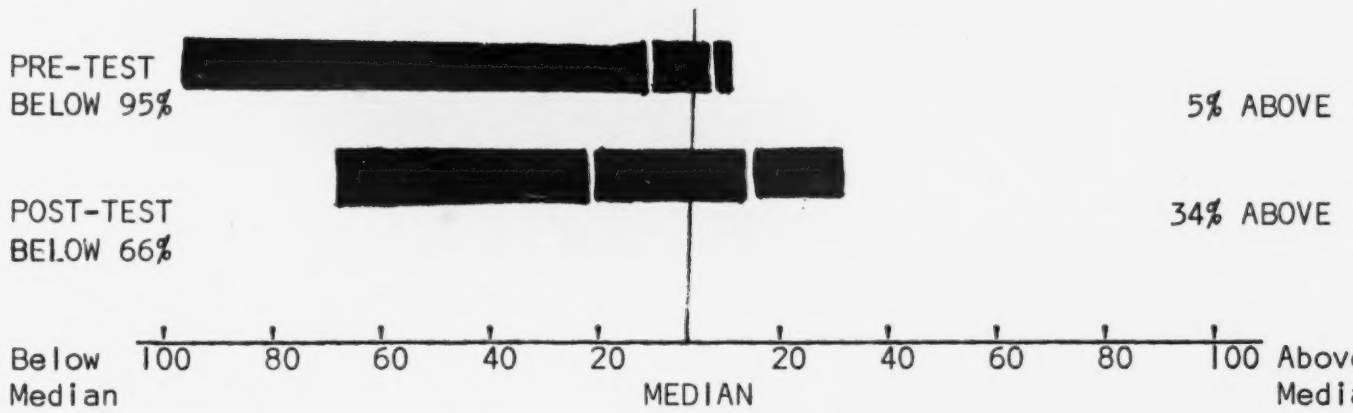
Quartiles
1 = 1-25th percentiles
2 = 26-50th percentiles
3 = 51-75th percentiles
4 = 76-99th percentiles

Subtest II - Associative Vocabulary

Table 5 shows that about twenty-nine per cent (or one-fourth) of the pupils advanced to above the national median between pre and post-testing. But there were still forty-five per cent of the Pre-Kindergartners in the lowest quartile.

TABLE 5

PERCENTAGES OF PRE-KINDERGARTEN PUPILS
ABOVE AND BELOW THE NATIONAL MEDIAN*
SUBTEST II - ASSOCATIVE VOCABULARY



*In the national sample 50 per cent of pupils were below and 50 per cent above the median before any classroom instruction. The numbered sections of each bar show the percentages of Columbus pupils in each national quartile.

For further understanding of pupil gains, a turnover table was constructed for Subtest II. It is shown as Table 6 below and shows the same pattern as the turnover table for Subtest I. Almost one-half of the pupils improved their quartile standing on this subtest (49%) and more than one-half (51%) remained the same or regressed.

If we look only at the percentages of pupils who remained in the first quartile, in both fall and spring this accounts for forty-three per cent of the pupils. If this subtest is accepted as a measure of the type of vocabulary necessary for school readiness, then nearly one-half of the pre-kindergarten children did not make important gains in this area.

TABLE 6

PRE-POST COMPARISONS BY QUARTILE
PLACEMENT FOR PRE-KINDERGARTEN PUPILS
SUBTEST 11

		Pre-Test			
Quartile		1	2	3	4
Post-Test	1	43% N = 210	2% N = 11	1% N = 3	
	2	17% N = 81	3% N = 14	1/2% N = 2	1/2% N = 1
	3	11% N = 56	1% N = 7	1/2% N = 1	1/2% N = 2
	4	11% N = 54	6% N = 30	2% N = 10	1% N = 5

Quartile Standing

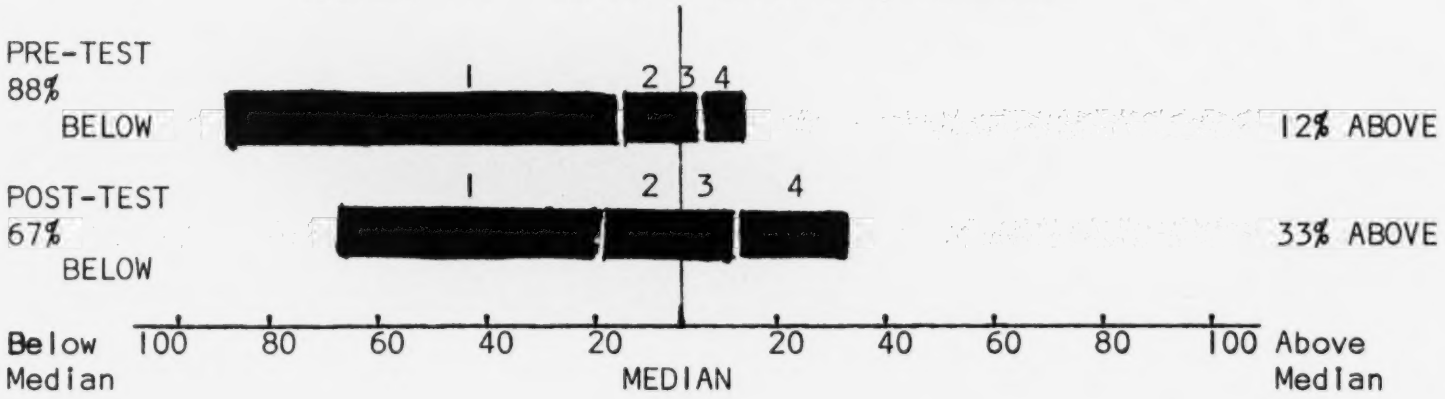
N = 238	improved	48.8%
N = 230	same quartile	47.3%
N = 19	regressed	3.9%
Total N = 487		100%

Subtest III - Concept Activation, Numerical

The percentages in Table 7 suggest that gains were not made in the number concept area by a substantial number of pupils. About twenty per cent of the pre-kindergarten pupils advanced above the median during the year. Since fifty per cent of the pupils are expected to score above the median and thirty three per cent were actually above the median, there is a discrepancy of seventeen per cent.

TABLE 7

PERCENTAGES OF PRE-KINDERGARTEN PUPILS
ABOVE AND BELOW THE NATIONAL MEDIAN*
SUBTEST III - CONCEPT ACTIVATION, NUMERICAL



*In the national sample 50 per cent of pupils were below and 50 per cent above the median before any classroom instruction. The numbered sections of each bar show the percentages of Columbus pupils in each national quartile.

An examination of Table 8 confirms the conclusion that g ins were not substantial for a majority of pupils. Only about forty-three per cent of the pupils improved their quartile standing between pre and post-tests while fifty-seven per cent remained in the same quartile or regressed. If the upper left-hand corner of the table is examined, it is apparent that nearly half the pupils did not score above the first quartile after a year of instruction in pre-kindergarten.

TABLE 8

PRE-POST COMPARISONS BY QUARTILE
PLACEMENT FOR PRE-KINDERGARTEN PUPILS
SUBTEST III

		Pre-Test			
Quartile		1	2	3	4
Post-Test	1	44% N = 215	2% N = 10	1% N = 5	1% N = 3
	2	15% N = 75	3% N = 15		1/2% N = 2
	3	9% N = 42	2% N = 9	1% N = 5	1% N = 6
	4	9% N = 42	5% N = 23	6% N = 27	2% N = 8

Quartile Standing

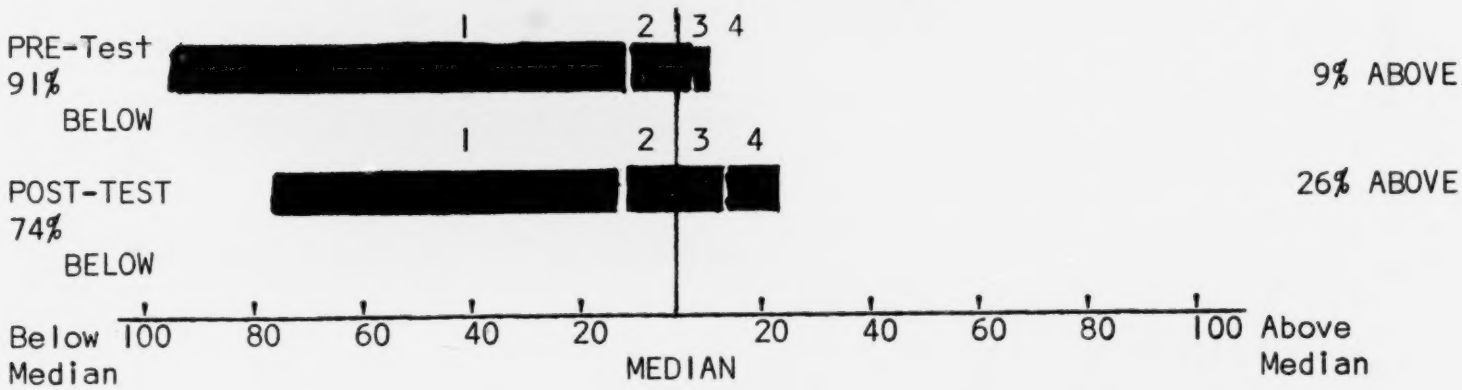
	N = 218	increased	44.7%
	N = 243	same quartile	49.8%
	N = 26	regressed	5.3%
Total	N = 487		100%

Subtest IV - Concept Activation, Sensory

Table 9 illustrates that only about one-fourth of the pupils scored above the median on the post-test. This is a smaller percentage above the national median than on any of the other subtests, which means that Concept Activation, Sensory is the weakest area for the majority of pupils, Only seventeen per cent of the pupils moved from below to above the national median and this is the lowest percentage of any subtest.

TABLE 9

PERCENTAGES OF PRE-KINDERGARTEN PUPILS
ABOVE AND BELOW THE NATIONAL MEDIAN*
SUBTEST IV - CONCEPT ACTIVATION, SENSORY



*In the national sample 50 per cent of pupils were below and 50 per cent above the median before any classroom instruction. The numbered sections of each bar show the percentages of Columbus pupils in each national quartile.

Table 10 below, shows the same pattern as the other three subtests. Nearly sixty per cent of the pupils did not score above the first quartile on the post-test. Thirty-one per cent of the pupils improved their quartile standing, and eight per cent regressed.

TABLE 10

FALL - SPRING COMPARISONS BY QUARTILE PLACEMENT
FOR PRE-KINDERGARTEN PUPILS
SUBTEST IV

		Pre -Test			
	Quartile	1	2	3	4
Post-Test	1	57% N = 279	3% N = 18	1% N = 7	1% N = 4
	2	9% N = 46	1% N = 3	1/2% N = 2	1/2% N = 1
	3	8% N = 39	3% N = 15	1% N = 7	1% N = 5
	4	5% N = 24	4% N = 18	2% N = 10	2% N = 8

Quartile Standing

	N = 152	improved	31.2%
	N = 297	same quartile	60.9%
	N = 38	regressed	7.8%
Total	N = 487		100%

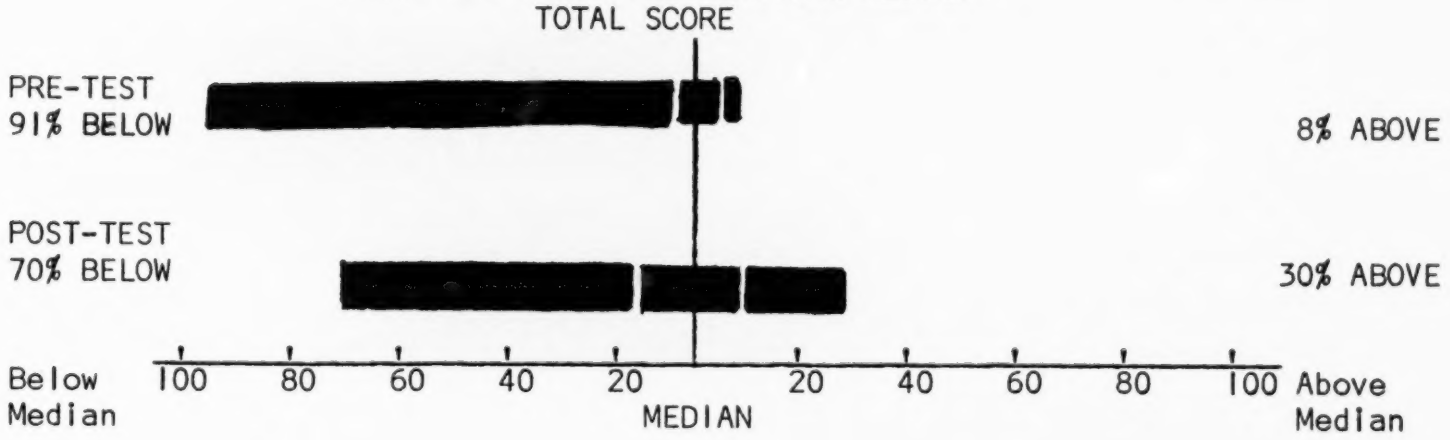
Total Score

The total score percentiles were not derived by summing or averaging the percentiles of the four subtests. They were found by taking the total raw score a child received on the test and referring to a total score percentile table. Therefore, a child could have scored a high percentile on some subtests and yet scored a low percentile on total score.

Table II shows the percentages above and below the median for total scores of the pupils in the sample. Twenty-two per cent of the children moved from below to above the median between the pre and post-tests. However, sixty-eight per cent remained below the median, and fifty-eight per cent remained in the first quartile on the post-test.

TABLE II

PERCENTAGES OF PRE-KINDERGARTEN PUPILS
ABOVE AND BELOW THE NATIONAL MEDIAN*
TOTAL SCORE



*In the national sample 50 per cent of pupils were below and 50 per cent above the median before any classroom instruction. The numbered sections of each bar show the percentages of Columbus pupils in each national quartile.

A turnover table, Table 12, was constructed for total scores. The pattern is similar to that for other subtests, with a majority of pupils scoring in the lowest quartile on the post-test. Thirty-eight per cent of the pupils improved in quartile standing and about three per cent regressed.

TABLE 12

PRE-POST COMPARISONS BY QUARTILE PLACEMENT
FOR PRE-KINDERGARTEN PUPILS
TOTAL SCORE

		Pre-Test			
Quartile		1	2	3	4
Post-Test	1	57% N = 275	1% N = 6	1/2% N = 1	
	2	10% N = 50	1% N = 5	1% N = 4	
	3	9% N = 43	2% N = 10	1/2% N = 2	1/2% N = 1
	4	10% N = 49	2% N = 12	5% N = 23	1% N = 6

Qrartile Standing

N = 187	improved	38.3
N = 288	same quartile	59.1
N = 12	regressed	2.5
Total N = 487		100%

Summary of Results

The Pre-Kindergarten pupils made small to moderate gains on the Bettye Caldwell Pre-School Inventory. Forty per cent or more of the pupils made substantial gains on the Personal-Social Responsiveness, Associative Vocabulary, and Concept Activation, Numerical subtests. On the post-test, percentages above the national medians ranged from twenty-six to forty-two per cent. The areas in which the Pre-Kindergarten pupils as a group were weakest in the spring were Concept Activation, Numerical (Subtest III) and Concept Activation, Sensory (Subtest IV). Table 13 summarizes quartile changes for all subtests and total score.

TABLE 13

QUARTILE CHANGES IN PERCENTAGES OF PRE-KINDERGARTEN PUPILS BY SUBTEST AND TOTAL SCORE

	SUBTEST				
Quartile Standing	I	II	III	IV	Total Score
Improved	43.1	48.8	44.7	31.2	38.3
Same	49.4	47.3	49.8	60.9	59.1
Regressed	7.3	3.9	5.3	7.8	2.5
N = 487 Total	100%	100%	100%	100%	100%

C. Parental Support, Objective 3

Instrumentation

Two instruments were locally constructed for measuring this objective, a teacher interview and a parent interview. Teachers were interviewed between February 2 and March 6, 1970 by the evaluator. There were twenty-one questions in the interview concerning parent education and the Pre-Kindergarten Program.

The parent interviews were conducted in January, 1970 by the four social workers. Forty parents were randomly chosen to be interviewed. The interview consisted of fourteen items.

Results

Parent Education

The instructional program was organized with four days for pupil instruction and one day for parent activities. Teachers were asked the question, "Which of the following effects has teaching the children four days each week (instead of five) had?" The majority of teachers thought that having a day for parent activities was beneficial to the children. See Table 14 for responses to this question.

TABLE 14

FREQUENCY COUNT OF RESPONSES TO ITEM 2 OF THE TEACHER INTERVIEW:

Which of the following effects has teaching the children four days each week (instead of five) had?

Responses	Frequency
It has:	
been very detrimental to the children	0
been slightly detrimental to the children	5
not affected the children at all	6
been slightly beneficial to the children	5
been very beneficial to the children	5
Total	21

The teacher interviews revealed that teachers were divided about the purpose of parent education. Some believed that the program should be recreational for parents. Some teachers thought the activities should relate to the pre-kindergarten child and his welfare. The majority of teachers held activities for both purposes to help parents with their own problems and with handling the pre-kindergarten child.

Parent interviews showed that parent education led to instructional reinforcement at home. Table 15 shows parent responses to the item concerned with reinforcement.

TABLE 15

FREQUENCY COUNT OF PARENT RESPONSES TO ITEM 3 OF THE PARENT INTERVIEW:
Has the Pre-Kindergarten Program helped your child in any of the following areas?

Response	Frequency			Totals
	Improved a lot	Some Improvement	No Change	
a. Teaching him to speak better	22	11	7	40
b. Teaching him new words	17	14	9	40
c. Getting him to want to go to school	21	2	16	39
d. Teaching him to do more things by himself	25	11	4	40
e. Helping him listen to what adults say	15	18	7	40
f. Helping him to throw a ball, climb, run, or other outdoor activities	16	10	14	40
g. Helping him to button his coat, tie his shoes, or other activities with his hands	15	17	8	40
h. Helping him to play with children his own age	25	11	4	40

The parent interviews also gave information relating to whether or not children visited the health center. The parents were asked how many visits to the health center their child had made. The results appear in Table 16.

TABLE 16

NUMBER OF VISITS TO HEALTH CENTER OF PRE-KINDERGARTEN CHILDREN, REPORTED BY PARENTS

Number of Visits	Frequency
1	16
2-3	4
4-5	1
6-8	1
Total	22

Another question asked of parents was "Would you be willing to go back or take another child to the school health center?" All parents, except those who go to a private doctor, said "Yes" to this question. The results to this question appear in Table 17.

TABLE 17

FREQUENCY COUNT OF PARENT RESPONSES TO ITEM 11:

Would you be willing to go back to the health center?

Response	Frequency
Yes	24
No	0
Private doctor	3
Total	27

Parents followed through on the health needs of their children. Health center records showed that nearly two hundred children did revisit the centers. This is about one-third of the children served by Pre-Kindergarten. The totals appear in Table 18.

TABLE 18

NUMBER OF PRE-KINDERGARTEN PUPILS
VISITING HEALTH CENTER
ONCE AND MORE THAN ONCE

Number of children		Total Visits
One Visit	Return Visit	
362	181	543

Another indication of parent interest in their children's health is the number of parents receiving instruction at the health center about the care of their children. One hundred thirty-four parents were given instruction, or about one-fourth of the number of children in the program. Table 19 is a frequency count of the number of parents receiving instruction for medical and dental care.

TABLE 19

FREQUENCY COUNT OF INSTRUCTION GIVEN BY THE
HEALTH CENTERS TO PARENTS OF PRE-KINDERGARTEN
CHILDREN

Type of instruction	Number
Medical	56
Dental	78
Total	134

SECTION IV. RELATIONSHIPS AND INDICATORS

A. Congruence with Objectives

The major question an evaluation of outcomes should answer is "How well did the program meet its objectives?"

To answer this question, each objective will be stated, followed by a summary of data relating to that objective.

Objective 1. To facilitate the perceptual development of the child such that, if successful, the child will be able to identify and classify sensory experiences as measured by Bettye Caldwell Preschool Inventory (B.C.P.I.).

Looking only at the total score of the B.C.P.I., sixty-three per cent of the pupils remained in the same quartile in the spring as they were in the fall. Sixty per cent remained in the lowest quartile. The data suggests that the objective was met to only a limited extent.

Objective 2. To facilitate the development of the enrolled child in oral language skills related to his school environment such that, if successful, the child will be able to score at or above the 67th percentile on a post-test administration of the "associative vocabulary" subtest of the Bettye Caldwell Preschool Inventory.

Table 15 shows that this objective was achieved by thirty per cent of the pupils. This means that about one-third of the Pre-Kindergarten pupils achieved the objective but two-thirds did not. This objective was minimally achieved.

TABLE 20

NUMBER AND PERCENTAGES OF PRE-KINDERGARTEN PUPILS SCORING ABOVE AND BELOW THE 67th PERCENTILE ON THE ASSOCIATIVE VOCABULARY SUBTEST

	Number	Percentage
Above 67th Percentile	145	29.8
Below 67th Percentile	342	70.2
Totals	487	100.0

Objective 3. To design and implement a parental education program such that, if successful, parents will be encouraged to support and reinforce the instructional program as measured by parent interviews, and to also follow through on health needs of the child as measured by health center medical and dental records.

There are two parts to this objective which the evaluator attempted to measure: (a) the amount of parental support of the instructional program and (b) the amount of parent follow-through on health needs of the child.

Parental Support of the Instructional Program

From the teacher interviews, it was found that the parent education program was successful because of increased parent contacts with the school, and a great deal of interest shown by parents at parent meetings. Teachers thought the parent program increased positive attitudes towards the school among parents.

Teachers were divided about the purposes of parent education. Some wanted activities centered around instruction of the child, others wanted recreation for the parents, while the majority wanted both. The parent interviews indicated that most parents do reinforce the instructional program at home to some extent.

Amount of Follow-Through on Health Needs

Health center records showed about one-third of the children returned for a second visit.

SECTION V. JUDGMENTS OF WORTH

A. Value of Outcomes

The Pre-Kindergarten Program evaluation indicates that the program had significant impact on the oral language and other cognitive behaviors of one-third of the pupils, as measured by the Bettye Caldwell Pre-School Inventory. The parent education program resulted in about one-third of the parents revisiting the health center with their children.

B. Relevence of Objectives to Needs

The objectives of the Pre-Kindergarten Program seem to be relevent to the needs of the pupils served, as evidenced by the large percentage of pupils achieving at low levels on the pre-test of the B.C.P.I. However, the objectives are not being met for the majority of pupils. This could be due to the incongruence between program objectives and teacher goals and activities. If teacher goals differ from the objectives expressed and measured at the program level, then poor achievement for many pupils on the achievement test could result. This seems to occur even though teachers themselves administer the B.C.P.I. test. In addition, the variations between activities in each

classroom could have lessened the impact of the program.

C. Recommendations

From the evaluation of the Pre-Kindergarten Program, the following recommendations are made:

1. Program objectives should be clearly understood by the teachers before the instructional program begins and their behavioral goals should be developed directly from the program objectives. The pre-kindergarten teachers as a group should agree upon these goals.

2. Classroom activities should be designed to achieve the behavioral goals.

3. Parent education should continue with efforts being made to involve more parents in the activities so that the instructional goals will be reinforced at home by a greater number of parents.

4. The purpose of parent activities specified in Objective 3 (i.e. to help parents understand and teach their pre-kindergarten child) should be the primary consideration in planning activities with parents.

5. Pre-Kindergarten teachers should be observed periodically by an evaluator to determine if their classroom activities are congruent with program objectives.

FINAL REPORT

1970 SUMMER PRE-KINDERGARTEN

A continuation of the 1969-70 Pre-Kindergarten component was approved for six weeks, June 17 through July 31, 1970. This section reports the findings of the evaluation of the summer component.

SECTION I. SPECIFICATION OF THE PROGRAM

A. Curriculum

The curriculum was identical to the 1969-70 curriculum.

B. Learning Objectives

The first two objectives for the 1969-70 component were retained and may be read on page 3 .

C. Instructional Procedures

Staff. Each Pre-Kindergarten unit's staff consisted of a teacher, a school aide and any number of volunteers who served at least one-half day each week.

In addition to the teaching staff a service team of four social workers and two nurses worked with the teachers at each school. A project chairman and assistant project chairman supervised and administered the project.

The total staff included 31 teachers, 31 aides, 4 social workers, 2 nurses, a project chairman, and an assistant chairman. Table I shows the locations of the Pre-Kindergarten Units.

D. Students

The pupils were selected from those who attended the 1969-70 component. Criteria for selection are listed on page 6.

Approximately 411 pupils enrolled for the summer component.

E. Instructional and Community Setting

Each child attended school for five morning sessions each week. Each class accommodated between 12 and 15 pupils. The program was open to children who would eventually be entering public or non-public school.

The schools in which summer Pre-Kindergarten operated were Priority I, II, III, and IV schools. Four schools were not served during the 1969-70 school year and the pupils in these schools were selected from the school

attendance area using the criteria listed on page 6.

SECTION II. PROGRAM OUTCOMES

A. Opportunities Provided

The opportunities provided for the pre-kindergarten pupils included experiences in music, arts and crafts, physical education listening to stories, socio-dramatic play, educational trips and many other activities designed to meet the objectives and goals of the program. Each teacher designed her own activities, so the opportunities provided in each classroom were somewhat different.

B. Pupil Achievement Data

Instrumentation

The Bettye Caldwell Preschool Inventory (B.C.P.I.) was used to measure pupil achievement. A description of the instrument appears on page 7.

Sample

Summer Pre-Kindergarten pupils who had been a part of the B.C.P.I. post-test group in May 1970 were tested again in July 1970. A total of 136 pupils were administered the test during the sixth and final week of the summer program. If a child was absent for more than twenty per cent of the first five weeks of the summer, he was not post-tested.

Types of Analysis

For each of the four subtests and total score, the percentages above and below the national medians are reported on both pre and post-tests. To determine the nature of the changes in pupil scores, the pre-test and post-test scores were divided into quartiles and organized in a joint distribution or "turnover table". A turnover table appears for each subtest and the total score.

Results

Subtest I - Personal-Social Responsiveness

The percentages above and below the national median appear in Table 2. Forty per cent were above the median in May, and nearly fifty per cent of the pupils were above the median in July. This means that at the end of the summer program pupils achieved the same percentages,(fifty per cent above and fifty per cent below the madian) as the national norming group.

TABLE I

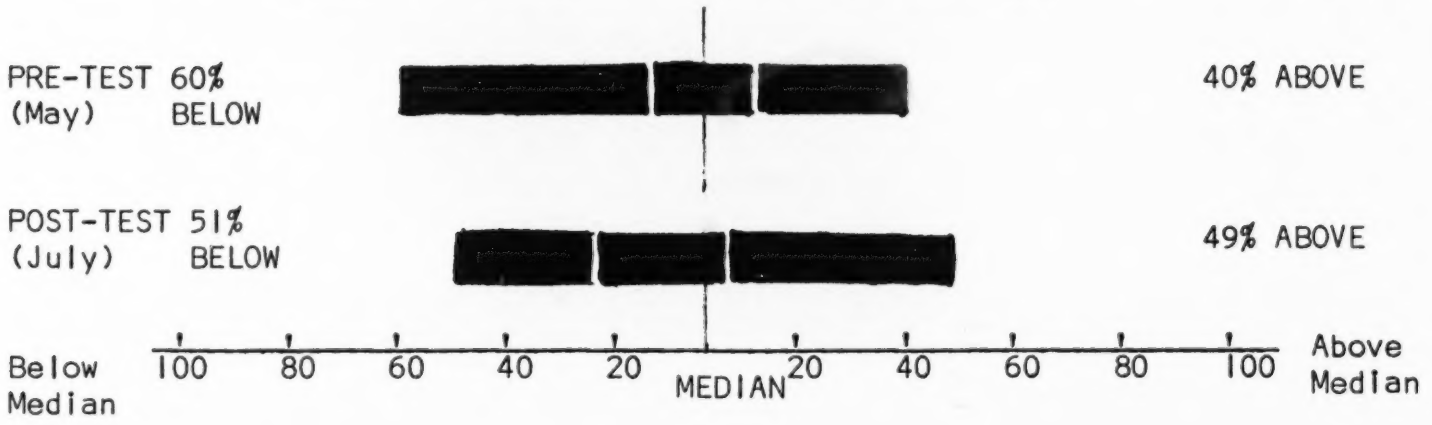
NAMES OF PARTICIPATING SCHOOLS AND NUMBER
OF LANGUAGE DEVELOPMENT TEACHERS IN
PRE-KINDERGARTEN FOR SUMMER 1970

	School	No. of Teachers		School	No. of Teachers
1.	Beatty Park	2	12.	Lincoln Park	1
2.	Beck	1	13.	Livingston	2
3.	Douglas	1	14.	Main	2
4.	Eleventh	2	15.	Milo	2
5.	Fair	1	16.	Ohio	2
6.	Felton	1	17.	Reeb	1
7.	Franklin Jr. (Fair)	1	18.	Second	1
8.	Garfield	1	*19.	Sullivant	1
*9.	Hamilton	2	20.	Trevett	1
*10.	Highland	2	21.	Weinland	2
*11.	Kent	1	22.	Windsor	4

*These schools did not participate during the 1969-70 school year.

TABLE 2

PERCENTAGES OF SUMMER PRE-KINDERGARTEN PUPILS
ABOVE AND BELOW THE NATIONAL MEDIAN
SUBTEST I - PERSONAL - SOCIAL RESPONSIVENESS



When the joint distribution, Table 3, is examined, we see that the same percentage of scores went up as the percentage that remained the same. When the nineteen per cent of pupils who remained in the highest quartile is subtracted from the forty-three per cent remaining the same, only twenty-four per cent are left. The pupils made substantial gains in the personal-social responsiveness area.

TABLE 3

PRE-POST COMPARISON BY QUARTILE PLACEMENT
FOR SUMMER PRE-KINDERGARTEN PUPILS
SUBTEST I

		Pre-Test (May)			
QUARTILE		1	2	3	4
Post-Test (July)	1	20% N = 27	3% N = 4	2% N = 2	2% N = 3
	2	14% N = 19	3% N = 4	1% N = 1	7% N = 9
	3	2% N = 3		1% N = 1	2% N = 2
	4	13% N = 17	6% N = 8	7% N = 10	19% N = 26

Standing in Quartiles

	N = 59	improved	43%
	N = 58	same quartile	43%
	N = 19	regressed	14%
Total	N =135		100%

Subtest II - Associative Vocabulary

There was a nine per cent increase from below to above the national median during the summer program. This is a substantial increase, but over sixty per cent of the pupils still remain below the median. Table 4 shows the percentages above and below the national median.

TABLE 4

PERCENTAGES OF SUMMER PRE-KINDERGARTEN PUPILS ABOVE AND BELOW THE NATIONAL MEDIAN SUBTEST II - ASSOCIATIVE VOCABULARY

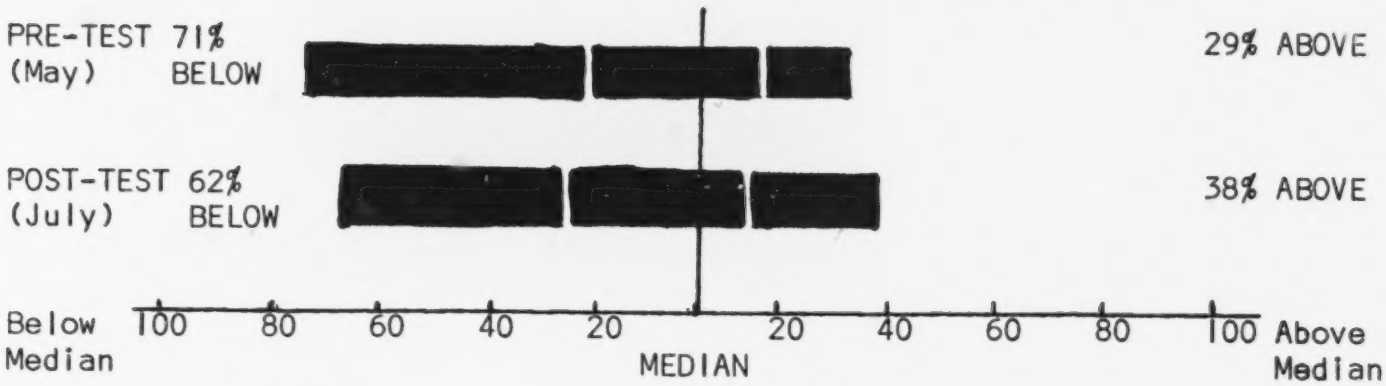


Table 5 gives more information about the nature of pupil gains on subtest II. Twice as many pupils improved their quartile standing as regressed. Thirty-five per cent of the pupils (about one-third) remained in the first three quartiles throughout the summer.

TABLE 5

PRE-POST COMPARISON BY QUARTILE PLACEMENT
FOR SUMMER PRE-KINDERGARTEN PUPILS
SUBTEST II

		Pre-Test (May)			
Quartile		1	2	3	4
Post-Test (July)	1	30% N = 41	6% N = 8	4% N = 5	
	2	11% N = 15	4% N = 6	4% N = 5	3% N = 4
	3	4% N = 5	5% N = 7	1% N = 1	2% N = 3
	4	5% N = 7	6% N = 8	4% N = 6	11% N = 15

Standing in Quartiles

N = 48	improved	35%
N = 63	same quartile	47%
N = 25	regressed	18%
Total N = 136		100%

Subtest III - Concept Activation, Numerical

After the summer program, forty per cent of the pupils scored above the national median, an increase of eight per cent over the pre-test. Fewer than half of the pupils in the sample performed well on the number concepts measured by the B.C.P.I.

TABLE 6

PERCENTAGES OF SUMMER PRE-KINDERGARTEN PUPILS
ABOVE AND BELOW THE NATIONAL MEDIAN
SUBTEST III

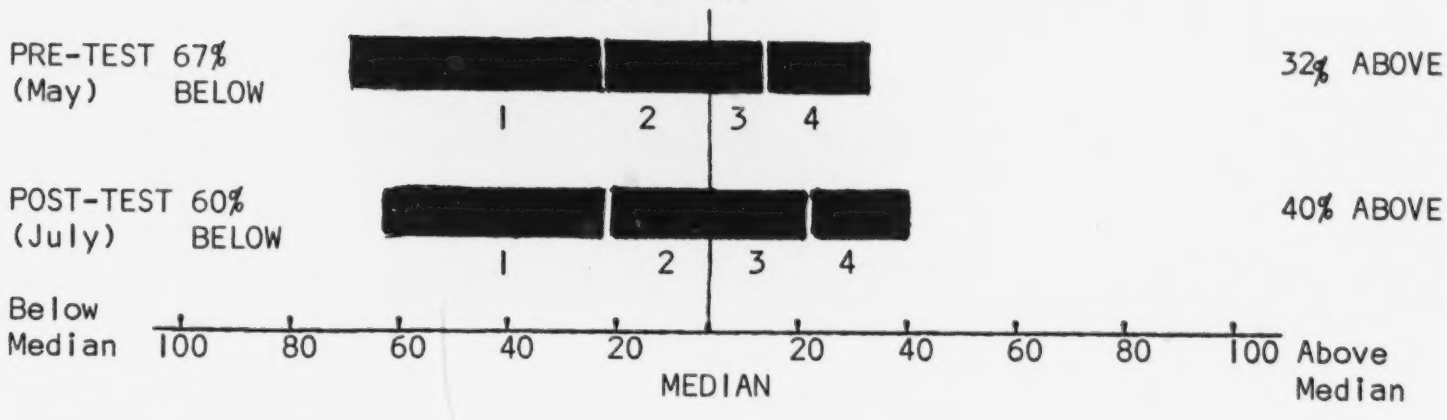


Table 7 illustrates the gains and losses made during the summer program. While twenty-nine per cent of the pupils improved their quartile standing, there were twenty-two per cent who regressed, leaving a net gain of eight per cent. Almost thirty per cent of the pupils remained in the lowest quartile.

TABLE 7

PRE-POST COMPARISON BY QUARTILE PLACEMENT
FOR SUMMER PRE-KINDERGARTEN PUPILS '
SUBTEST III

		Pre-Test (May)			
QUARTILE		1	2	3	4
Post-Test (July)	1	29% N = 39	7% N = 9	2% N = 2	4% N = 5
	2	9% N = 12	4% N = 6	4% N = 5	3% N = 4
	3	8% N = 11	6% N = 8	4% N = 6	4% N = 5
	4	3% N = 4	2% N = 3	2% N = 2	11% N = 5

Standing in Quartiles

N = 40	improved	29%
N = 66	same quartile	49%
N = 30	regressed	22%
Total N =136		100%

Subtest IV - Concept Activation, Sensory

Looking at Table 8, the percentage scoring above the national median on the pre-test was only seventeen per cent, the lowest for any of the subtests. But the increase to thirty-three per cent above the median on the post-test was an increase of sixteen per cent which was also the greatest increase for any subtest. Even with this large increase in perecntage above the median, there remained sixty-seven per cent below the median, also the greatest percentage below for any subtest.

TABLE 8

PERCENTAGES OF SUMMER PRE-KINDERGARTEN PUPILS
ABOVE AND BELOW THE NATIONAL MEDIAN
SUBTEST IV

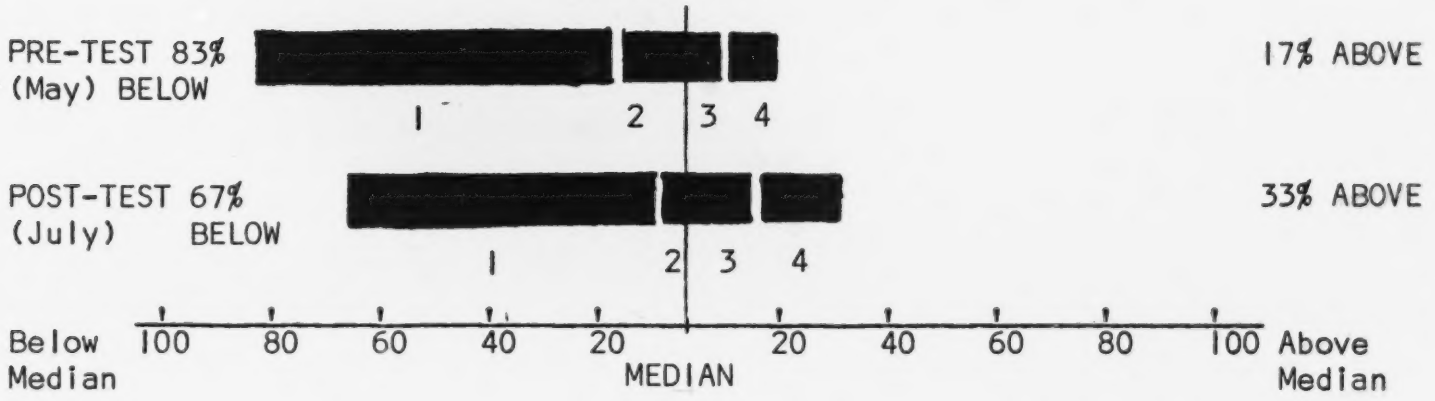


Table 9 gives a more complete picture of the gains on this subtest. Twenty-six per cent of the pupils improved, but ten per cent regressed. Over fifty per cent of the pupils remained in the lowest quartile. This suggests that although many pupils made substantial gains, there were still a great many pupils who did not make gains in sensory concepts during the summer program.

TABLE 9

PRE-POST COMPARISON BY QUARTILE PLACEMENT
FOR SUMMER PRE-KINDERGARTEN PUPILS
SUBTEST IV

		Pre-Test (May)			
QUARTILE		1	2	3	4
Post-Test (July)	1	54% N = 74	5% N = 7	2% N = 2	2% N = 2
	2	2% N = 3	2% N = 3		
	3	9% N = 12	3% N = 4	3% N = 4	2% N = 3
	4	6% N = 8	2% N = 2	4% N = 6	4% N = 6

Standing in Quartiles

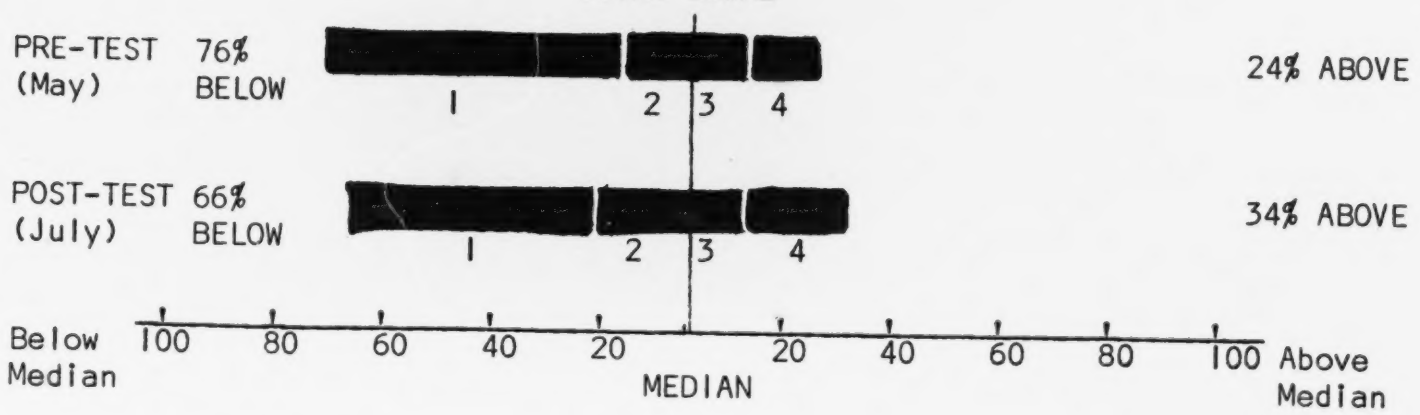
N = 35	improved	26%
N = 87	same quartile	64%
N = 14	regressed	10%
Total N = 136		100%

Total Score

For total score, one-fourth of the pupils were above the national median before the summer program. At the end of the summer program the total went up to thirty-four per cent for the post-test. As with Subtest IV, there were sixty-six per cent remaining below the median on the post-test. Table 10 gives the percentages for total score.

TABLE 10

PERCENTAGES OF SUMMER PRE-KINDERGARTEN PUPILS ABOVE AND BELOW THE NATIONAL MEDIAN
TOTAL SCORE



The joint distribution for total score, Table 11, shows that there was a substantial number of pupils improving their quartile standing, thirty-three per cent. Only ten per cent regressed. Forty per cent of the pupils remained in the first quartile. It appears that the five weeks of the summer program had much impact on the pre-kindergarten pupils who attended.

One question that may be asked concerning a summer component is whether or not the children attending the program were the children who needed additional instruction. There were three-hundred twenty pupils who scored below the national median on the B.C.P.I. at the end of the regular program in May. It appears that many of those three-hundred twenty children were not recruited for the summer program, because only one-hundred four children in the summer sample scored below the median in May. This suggests that over two-hundred children who scored low on the post-test did not participate in the summer Pre-Kindergarten.

TABLE 11

PRE-POST COMPARISONS BY QUARTILE PLACEMENT
FOR SUMMER PRE-KINDERGARTEN PUPILS
TOTAL SCORE

		Pre-Test (May)			
QUARTILE		1	2	3	4
Poar-Test (July)	1	40% N = 55	4% N = 6	1% N = 1	1% N = 1
	2	13% N = 18	4% N = 5	2% N = 3	1% N = 1
	3	7% N = 9	2% N = 3	3% N = 4	2% N = 2
	4	4% N = 6	2% N = 2	5% N = 7	10% N = 13

Standing in Quartiles

N = 45	improved	33%
N = 77	same quartile	57%
N = 14	regressed	10%
Total N =136		100%

Summary of Results

Summer pre-kindergarten pupils made moderate gains on the Bettye Caldwell Preschool Inventory. Over twenty-five per cent of the pupils improved their quartile standing on all subtests and total score. On the post-tests percentage above the national medians ranged from thirty-three to forty-nine per cent. The areas in which the summer pre-kindergarten pupils were weakest were Concept Activation, Sensory (Subtest IV) and Concept Activation, Numerical (Subtest III). Table 12 summerizes quartile changes for all subtests, and total score.

TABLE 12

QUARTILE CHANGES IN PERCENTAGES OF SUMMER PRE-KINDERGARTEN PUPILS BY SUBTEST AND TOTAL SCORE

Quartile Standing	Subtest I	II	III	IV	Total Score
Improved	43.3	35.2	29.4	25.7	33.0
Same	42.8	46.4	48.5	63.9	56.6
Regressed	13.9	18.4	22.1	10.4	10.4
Total N = 136	100%	100%	100%	100%	100%

Comparison of Summer and Winter Results

Table 13 compares quartile changes for the 1969-70 school year and the summer program. There was a smaller percentage who improved in the summer program and a larger percentage that regressed. The percentages with the same quartile standing were similar for both winter and summer programs.

The causes for the greater percentages of regression among summer pupils could be many. One possible cause would be the fact that many of the summer teachers did not teach Pre-Kindergarten during the school year and were not adjusted to planning activities for the four-year-olds. A second possible explanation is tester effects. The summer teachers may have administered the test differently in July than in May, causing scores to go down for some pupils. Also, the children were not as familiar with the summer teachers as they were with the winter teachers and this may have affected the test scores. A third explanation is that the pupils in the summer program forgot some of the concepts they had learned during the winter because a different teacher taught their class and they did not reinforce these concepts.

TABLE 13

QUARTILE CHANGES IN PERCENTAGES OF PRE-KINDERGARTEN PUPILS BY SUBTEST AND TOTAL SCORE, SUMMER AND WINTER PROGRAMS

Quartile Standing	SUBTESTS									
	I		II		III		IV		Total Score	
	Winter	Summ.	Winter	Summ.	Winter	Summ.	Winter	Summ.	Winter	Summ.
Improved	43	43	49	35	45	29	31	26	38	33
Same	49	43	47	47	50	49	61	64	59	57
Regressed	8	14	4	18	5	22	8	10	3	10
Totals	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

SECTION III. RELATIONSHIPS AND INDICATORS

A. Congruence With Objectives

To answer the question of how well the summer program met its objectives, a summary of the data relating to each objective will be presented.

Objective 1. To facilitate the perceptual development of the child, such that if successful, the child will be able to classify ssnsory experiences as measured by the B.C.P.I.

If the total score is used as a congruency measure for this objective, thirty-three per cent of the pupils improved quartile standing while ten per cent regressed. This means that although gains were moderate for many pupils, there were no gains or losses for over one-half the pupils in the program.

This data suggests that the objective was met to an extent. However, for such a short program, these gains are quite large.

Objective 2. To facilitate the development of the enrolled child in language skills related to his school environment such that if successful,the child will be able to score at or above the 67th percentile on a post-test administration of the "associative vocabulary" subtest of the B.C.P.I.

Table 14 indicates that this objective was achieved by thirty-two per cent of the summer pre-kindergarten pupils. This is about the same percentage as for the winter program (see page 23). About one-third of the pupils achieved the objective, which is only moderate congruence with the objective.

SECTION IV. RECOMMENDATIONS

The evaluator of the summer Pre-Kindergarten Program suggests the following recommendations:

1. Program goals should be more specific than the objectives specified for this summer's program. Since the program is so short, goals should be very limited so that they can be achieved during the program.

2. When post-test results in May are available, the teachers should be given a list of those children scoring below the national median so that these children may be recruited for the summer Pre-Kindergarten. Teachers, social workers, and teachers on special assignment should make efforts to involve these pupils in the summer instruction.